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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,667	06/26/2003	Takehiro Ohkawa	520.42854X00	3715

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EXAMINER	
TANG, SON M	

ART UNIT	PAPER NUMBER
2632	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/603,667	OHKAWA ET AL.	
	Examiner	Art Unit	
	Son M. Tang	2632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims **1-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein [US 6,965,866] in view of Uozumi et al. [US 6,840,440; Uozumi], and further in view of Otake Akira [JP 09-284038].

Regarding claim 1: Klein discloses a portable information device (cell phone) comprising, an RFID which is inhered an IC circuit for making communication using a magnetic field, and wherein said RFID is arranged within the battery compartment of a cell phone (col. 5, lines 29-31), whereby the RFID is obviously placed on a side of a battery cover which closes to the reader.

Klein does not specifically disclose a type of an RFID having antenna coil and condensers for resonance the antenna. Uozumi teaches a specific RFID that have a coil (14) antenna and a plurality of resonance condensers (19 capacitors) [as shown in Fig. 1, 8 and col. 5, lines 17-32]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to have use the condensers as suggested by Uozumi for tuning the frequency as required by the RFID.

Klein and Uozumi fail to specify that the RFID antenna have a magnetic material sheet arranged between the antenna coil and the battery, Otake teaches a communication device 2,

which comprising a magnetic material sheet arranged on the rear surface of the loop antenna 1 [see Abstract and Figure]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to implement a known concept of employing a magnetic material sheet next to the loop antenna of the communication device as suggested by Otake, into the communication device (RFID) of the combination above, for the advantage of enhancing power signal, since the magnetic material sheet is acted as a reflector for communication signal.

Regarding claim 2: Klein, Uozumi and Otake disclose all the limitations as described above, Uonzumi further teaches wherein the antenna coil 14 of the RFID has an intermediate tap (24), the condensers (19) for resonance are connected to both ends of the antenna coil, and the IC 25 is connected to the middle between one of the ends of the antenna coil and the intermediate tap [see Fig. 1, col. 5, lines 8-45].

Regarding claim 3: Klein, Uozumi and Otake disclose all the limitations as described above, except for not specific of the intermediate tap is from 1/3 to 1/5 of the total number of turns of the antenna coil. Since, the intermediate tap is located in different length of the antenna coil 54 see Fig. 7. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to have the intermediate tap at any appropriate length of the antenna coil respectively, including from 1/3 to 1/5 of the total number of turns as claimed.

Regarding claims 4-6: Klein, Uozumi and Otake disclose all the limitations as described above, Otake further teaches that the magnetic material sheet has an effective permeability, but fails to specify that has an initial of 10 or more and a thickness of 0.1mm or more and 1.0 mm or less. Since, the magnetic material sheet is being able to operate effectively, using any known number for permeability or thickness is not constitutes of invention step, but it

is a matter of design choice. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to implement any appropriate number of permeability and thickness for the magnetic sheet as the tag required or user desired.

Regarding claims 7-10: Klein, Uozumi and Otake disclose all the limitations as described above, Uozumi further teaches that the antenna 14 includes a portion of conductive aluminum foil [see col. 5, lines 9-15]. Although, it does not specify that the foil film between the magnetic sheet and the battery, however, it teaches that use aluminum foil film to separate one component with another (e.g. coil antenna and substrate or magnetic sheet and battery). Therefore, it would have been obvious of one having ordinary skill in the art at the time of the claimed invention, to use an aluminum foil as suggested by Uozumi to separate any appropriate component in the device, including magnetic sheet and the battery as claimed.

Regarding claims 11-15: Klein, Uozumi and Otake disclose all the limitations as described above, Uozumi further teaches an IC card 16 connected to the antenna coil 44b through a flexible substrate 31 and a connector and is mounted on a position different from the position of the antenna coil [see Fig. 5-6, col. 9, lines 9-15] which is depended on the side of the card, to position the IC card and antenna for the benefit of save space. Uozumi does not specific that the IC card is for both contact and non-contact uses, since IC card is being sensed by the reader or interrogator within particular frequency field, which also be able to read when IC card contact or touch the reader's antenna, which considered within the reader field. Therefore, it would have been obvious of one having ordinary skill in the art to recognize that the IC card is for both contact and non-contact uses, as long as the IC card is within the reader's field.

Regarding claims 16-20: Klein, Uozumi and Otake disclose all the limitations as described above, Uozumi further stated that the tag and antenna coil being stick it on a base board 18 and on any article (in this case can be a battery compartment), and whereby the base board 18 have an aluminum foil which can be removed before apply into the battery compartment. Therefore, It would have been obvious of one having ordinary skill in the art, to recognize that to not use a metal foil with the article as taught by Uozumi is for the purpose of preventing signal interference at the RFID device.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bartz [US 6,535,107], Tanaka [US 6,830,193], Yu et al. [US 2005/0097038], Sakakibara et al. [US 2002/0174336].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son M. Tang whose telephone number is (571)272-2962. The examiner can normally be reached on 4/9 First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571)272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Son Tang

Thomas J. Mullen, Jr.
Primary Examiner
Art Unit 2632

12-12-05